Breast-feeding policies and practices in Canadian hospitals providing maternity care

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Abstract • Résumé

Objective: To determine the extent to which policies and practices of Canadian hospitals providing maternity care are consistent with the World Health Organization (WHO)/UNICEF 10 Steps to Successful Breastfeeding, the WHO International Code of Marketing of Breast-Milk Substitutes and the WHO/UNICEF Baby Friendly Hospital Initiative.

Design: Cross-sectional mailed survey.

Setting: Canada.

Participants: Representatives of 572 hospitals providing maternity care across Canada were sent a questionnaire in the spring and summer of 1993; 523 (91.4%) responded.

Outcome measures: Self-reported implementation of policies and practices concerning infant feeding; hospitals were grouped according to location, size (number of live births per year) and university affiliation status.

Main results: Although 58.4% (296/507) of the respondents reported that their hospital had a written policy on breast-feeding, only 4.6% (21/454) reported having one that complied with *all* of the WHO/UNICEF steps surveyed. This figure dropped to 1.3% (6/453) when compliance with the WHO code (distribution of free samples of formula to formula-feeding and breast-feeding mothers) was added. Hospitals in Quebec and the Prairie provinces were significantly more likely than those in Ontario to give free samples of formula to both breast-feeding (OR 2.39 [95% confidence interval (CI) 1.39 to 4.09] and 20.22 [95% CI 9.27 to 44.33] respectively) and formula-feeding mothers (OR 1.82 [95% CI 1.07 to 3.11] and 8.03 [95% CI 3.29 to 19.6] respectively), after adjustment for hospital size and university affiliation status.

Conclusion: There are considerable variations in the implementation of individual WHO steps and provisions of the WHO code according to hospital location, size and university affiliation status. Very few Canadian hospitals meet all of the criteria that would enable them to be considered "baby friendly" according to the WHO/UNICEF definition.

Objectif : Determiner dans quelle mesure les politiques et les pratiques des hôpitaux du Canada qui dispensent des soins de maternité sont conformes au document intitulé «10 Steps to Successful Breastfeeding» de l'OMS et de l'UNICEF, au Code international de commercialisation des substituts du lait maternel de l'OMS et à l'Initiative des hôpitaux amis des bébés de l'OMS et de l'UNICEF.

Conception : Sondage postal transversal.

Contexte : Canada.

Participants : Des représentants de 572 hôpitaux fournissant des soins de maternité au Canada ont reçu un questionnaire au printemps et à l'été de 1993; 523 (91,4 %) ont répondu.

Mesures des résultats : Mise en oeuvre déclarée par les intéressés des politiques et des pratiques sur l'alimentation des nouveau-nés; les hôpitaux ont été regroupés selon le lieu où se trouve l'hôpital, sa taille (nombre de naissances-vivantes par année) et son affiliation universitaire.

Principaux résultats : Bien que 58,4 % (296/507) des répondants aient déclaré que leur hôpital avait une politique écrite sur l'allaitement maternel, seulement 4,6 % (21/454) ont rapporté qu'elle était conforme à *toutes* les mesures examinées de l'OMS et de l'UNICEF. Ce chiffre est tombé à 1,3 % (6/453) lorsqu'on

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a ajouté la conformité au code de l'OMS (distribution d'échantillons gratuits de lait maternisé aux mères qui allaitent et à celles qui donnent du lait maternisé à leur bébé). Les hôpitaux du Québec et des provinces des Prairies étaient beaucoup plus susceptibles que ceux de l'Ontario de remettre des échantillons gratuits de lait maternisé à la fois aux mères qui allaitent (RR 2,39 [intervalle de confiance (IC) à 95 %, 1,39 à 4,09] et 20,22 [IC à 95 %, 9,27 à 44,33] respectivement) et à celles qui donnent du lait maternisé à leur bébé (RR 1,82 [IC à 95 %, 1.07 à 3,11] et 8,03 [IC à 95 %, 3,29 à 19,6] respectivement), compte tenu de la taille de l'hôpital et de son affiliation universitaire.

Conclusion : La mise en oeuvre des étapes individuelles de l'OMS et des dispositions du code de l'OMS varie considérablement selon le lieu où se trouve l'hôpital, sa taille et son affiliation universitaire. Très peu d'hôpitaux canadiens se conforment à tous les critères qui leur permettraient d'être considérés comme amis des bébés selon la définition de l'OMS et de l'UNICEF.

Breast-feeding is known to have important benefits to the health of infants and children.[1–4] However, a number of routine policies and practices believed to prevent successful initiation or continuation of breast-feeding[5–17] remain in hospitals in Canada[18] and elsewhere.[19]

Three documents emphasize the critical role that hospitals and health care professionals play in encouraging initiation and continuation of breast-feeding. In 1981 the World Health Organization (WHO) International Code of Marketing of Breast-Milk Substitutes[20] was drafted. The WHO code contains a number of provisions with direct implications for health care professionals and maternity wards concerning the promotion and distribution of breast-milk substitutes (Table 1). In 1989 WHO and UNICEF, in a joint statement,[21] described 10 steps to successful breast-feeding. These 10 steps are internationally relevant and outline the policies and practices that should be implemented in hospitals in order to protect, promote and support breast-feeding (Table 2). Finally, the Innocenti Declaration was produced and adopted by participants at the WHO/UNICEF policymakers' meeting in 1990.[22] It called for all governments to develop national breast-feeding policies and set appropriate targets for the 1990s.

The WHO/UNICEF Baby Friendly Hospital Initiative (BFHI) was developed from these three documents and is a global initiative designed to give babies the best start. It is a structured method of implementing policies to promote, protect and support breast-feeding and, among other requirements, involves the implementation of the WHO/UNICEF 10 steps and the WHO code on a hospital level. Canada is a signatory to all three documents and has been challenged to implement the BFHI.

In 1980, 1985 and 1993 the Canadian Institute of Child Health conducted national surveys of routine policies and practices in Canadian hospitals providing maternity care.[18,23,24] The 1993 survey covered about 11 topics, including infant feeding. The present study is a detailed analysis of the responses to the questions on infant feeding contained in the 1993 survey. We were interested in determining whether the implementation of the WHO/UNICEF 10 steps and the WHO code was associated with the hospital's location (province or region), size (number of live births per year) and university affiliation status. We also wished to determine whether many

Table 1: Summary of the WHO International Code of Marketing Breast-Milk Substitutes[20]

No advertising of breast-milk substitutes to the public
No free samples to be given to mothers[5,11,12]
No promotion of products in health care facilities
No company mothercraft nurses to advise women
No gifts or personal samples to be given to health care workers
No words or pictures idealizing artificial feeding, including pictures of infants, on the labels of products
Information to health workers should be scientific and factual
All information on artificial infant feeding, including that contained in product labels, should explain the benefits of breast-feeding, and the costs and hazards associated with artificial feeding
Unsuitable products, such as sweetened condensed milk, should not be promoted for babies
All products should be of high quality and take account of the climatic and storage conditions of the country where they are used

Table 2: Ten steps to successful breast-feeding recommended for facilities providing maternity services and care for newborns, issued jointly by the World Health Organization (WHO) and UNICEF[21]

Step 1	Have a written breast-feeding policy that is routinely communicated to all health care staff
Step 2	Train all health care staff in skills necessary to implement the breast-feeding policy
Step 3	Inform all pregnant women about the benefits and management of breast-feeding[10]
Step 4	Help mothers initiate breast-feeding within a half hour after birth
Step 5	Show mothers how to breast-feed and how to maintain lactation even when they are separated from their infants
Step 6	Give newborns no food or drink other than breast milk, unless *medically* indicated[15]
Step 7	Practise rooming-in: allow mothers and infants to remain together, 24 hours a day
Step 8	Encourage breast-feeding on demand[7]
Step 9	Give no artificial teats or pacifiers (also called dummies or soothers) to breast-feeding infants[16,17]
Step 10	Foster the establishment of breast-feeding support groups and refer mothers to them at discharge from the hospital or clinic[8,9]

hospitals in Canada had policies and practices that incorporated the code and the 10 steps and could thereby be considered "baby friendly," as defined by WHO.[25]

Methods

We based our analysis on data from a larger survey of Canadian hospitals conducted in the spring and summer of 1993.[18] The survey questionnaire had been sent to the nursing directors at all 572 hospitals providing maternity care, according to the 1992 *Canadian Hospital Directory*.[26] The nursing directors had been asked to have it completed by the most appropriate person at their hospital or maternity unit. Two reminders had been sent to nonrespondents. The unit of analysis throughout the current study, as in the original one, was the same as the unit surveyed: namely, the individual hospital or maternity unit.

The principles of survey design of Dillman[27] and Del Greco and associates[28–32] had been used to develop and distribute the 1993 questionnaire. The questionnaire had been translated into French, and small revisions had been made after a pilot test at 15 hospitals. The original questionnaire contained 14 questions (out of 92) that addressed infant feeding. These questions had been reviewed by the National Expert Working Group on Breastfeeding, a committee established by Health Canada. Seven questions addressed policies included in the WHO/UNICEF 10 steps, and two dealt with issues related to the WHO code. A copy of the questionnaire was appended to the published report.[18] There was no attempt made to assess validity and reliability of the original questionnaire beyond its face validity.

Geographic location was recategorized for our analysis as follows: British Columbia, the Prairie provinces, Ontario, Quebec and the Atlantic provinces. The Yukon and Northwest Territories were included with the Atlantic provinces because (a) there was only one hospital in the Yukon Territory and there were only three in the Northwest Territories and (b) the populations in the territories and the Atlantic provinces had similar socioeconomic characteristics. As in the original study, we defined hospital size as the number of live births per year; this information was compiled from responses to the item "Total number of live births in 1992." Hospital size was recategorized for our analysis as follows: 0 to 100 live births per year, 101 to 300, 301 to 1000, and more than 1000. The university affiliation status was determined according to whether the hospital was a university teaching hospital, a university affiliated hospital or a nonteaching hospital.

The data were analysed with the use of SPSS software (version 4.0 for Macintosh, SPSS Inc., Chicago, 1990). Multiple logistic regression analysis was performed to identify the relative risk (estimated as odds ratios [ORs] and 95% confidence intervals [CI]) of not having or having policies conforming to the WHO/UNICEF 10 steps and the WHO code. The hospital's location, size and university affiliation status were entered into the multivariate analyses as independent variables. In all of our analyses the following served as reference categories: hospitals located in Ontario, hospitals with more than 1000 live births and teaching hospitals. Table 3 provides the descriptive data concerning implementation of breast-feeding policies for the overall sample and for the hospitals in the reference categories.

Because of the exploratory nature of our study, the

Table 3: Proportion of hospitals, in the reference categories and overall, whose policies complied with the WHO/UNICEF steps surveyed and the WHO code

	Reference category; no. (and %) of hospitals			
Step/code	Hospitals in Ontario	Hospitals with more than 1000 live births per year*	Teaching hospitals	Overall
Step 1	103/141 (73.0)	96/121 (79.3)	26/33 (78.8)	296/507 (58.4)
Step 4	140/141 (99.3)	121/121 (100.0)	33/33 (100.0)	497/499 (99.6)
Step 6	97/140 (69.3)	84/122 (68.9)	26/33 (78.8)	280/518 (54.1)
Step 7	88/138 (63.8)	78/116 (67.2)	25/32 (78.1)	324/497 (65.2)
Step 8	140/140 (100.0)	116/122 (95.1)	32/33 (97.0)	503/518 (97.1)
Step 9	37/141 (26.2)	23/122 (18.9)	11/33 (33.3)	126/519 (24.3)
Step 10	93/140 (66.4)	86/121 (71.1)	23/33 (69.7)	297/513 (57.9)
WHO code: breast-feeding†	109/141 (77.3)	86/122 (70.5)	26/33 (78.8)	302/517 (58.4)
WHO code: formula-feeding‡	55/141 (39.0)	48/122 (39.3)	15/33 (45.5)	157/517 (30.4)

*In 1991 or 1992.
†Distribution of free samples of formula to breast-feeding mothers.
‡Distribution of free samples of formula to formula-feeding mothers.

lack of previous research in this area, the importance of maintaining adequate analytical power and the absence of an *a priori* specified hypothesis, we accepted a p value of less than 0.05 as indicating statistical significance.

Results

Response rates and sample description

In the original 1993 survey a total of 523 usable questionnaires were returned, for an overall response rate of 91.4%. The response rate was lowest in Quebec (81.2%), and in several provinces and both territories it was 100%. According to hospital size, the response rate was 89.1% or greater in each category. The rate was equally high according to hospital-affiliation status, but it was impossible to calculate the actual figure because of the unknown affiliation status of the 49 nonrespondents. Table 4 presents selected characteristics of the 523 hospitals by location, size and university affiliation status.

Compliance with the WHO/UNICEF 10 steps

Written breast-feeding policy (step 1)

In all, 58.4% (296/507) of the hospitals were reported to have a written policy on breast-feeding. After adjustment for hospital size and affiliation status, hospitals in Quebec and the Prairie provinces were found to be significantly less likely than those in Ontario to have a written policy (OR 0.24 [95% CI 0.13 to 0.47] and 0.59 [95% CI 0.35 to 0.99] respectively) (Fig. 1). Hospital size was also an important factor: smaller hospitals were significantly less likely than large hospitals (more than 1000 live births) to have a written policy (hospitals with 0 to 100 live births: OR 0.18 [95% CI 0.09 to 0.36]; 101 to 300 live births: OR 0.36 [95% CI 0.18 to 0.71]; and 301 to 1000 live births: OR 0.33 [95% CI 0.17 to 0.66]), after adjustments for location and affiliation status. There were no significant differences according to university affiliation status.

Of the respondents whose hospital had a written policy 50.0% (148/296) indicated that it was based on the WHO/UNICEF 10 steps and the WHO code. The policies of hospitals in Quebec were considerably less likely than those of hospitals in Ontario to be based on the 10 steps (OR 0.26 [95% CI 0.07 to 0.94]), after adjustments for hospital size and affiliation status. In addition, written policies of smaller hospitals were considerably less likely than those of the largest hospitals to have been based on the 10 steps (hospitals with 0 to 100 live births: OR 0.18 [95% CI 0.09 to 0.36]; 101 to 300 live births: OR 0.36 [95% CI 0.18 to 0.71]; and 301 to 1000 live births: OR 0.33 [95% CI 0.17 to 0.66]).

Policy for helping mothers initiate breast-feeding within half an hour after birth (step 4)

In the 1993 survey almost all of the respondents (99.6% [497/499]) stated that in their hospital the baby is first offered the breast immediately after birth. Consequently, we did not conduct further analyses of this question.

Policy for giving newborns no food or drink other than breast milk (step 6)

Almost half (45.9% [238/518]) of the respondents reported that in their hospital breast-fed babies were usually given other liquids (i.e., water, glucose, formula) at any time, in violation of step 6. The hospitals in the Prairie provinces and the Atlantic provinces were significantly less likely than those in Ontario to have implemented step 6 (OR 0.30 [95% CI 0.18 to 0.49] and OR

Table 4: Number (and %) of hospitals by location, hospital size and university affiliation status

	Hospital size*				University affiliation status		
Location	0–100	101–300	301–1000	> 1000†	Teaching†	Affiliated	Neither
British Columbia *n = 65*	20 (30.8)	13 (20.0)	18 (27.7)	14 (21.5)	1 (1.5)	7 (10.8)	57 (87.7)
Prairie provinces *n = 184*	109 (59.2)	41 (22.3)	15 (8.2)	19 (10.3)	9 (4.9)	15 (8.2)	160 (87.0)
Ontario† *n = 141*	25 (17.7)	36 (25.5)	28 (19.9)	52 (36.9)	14 (9.9)	12 (8.5)	115 (81.6)
Quebec *n = 69*	4 (5.8)	16 (23.2)	18 (26.1)	31 (44.9)	9 (13.0)	21 (30.4)	39 (56.5)
Atlantic provinces‡ *n = 64*	21 (32.8)	19 (29.7)	17 (26.6)	7 (10.9)	1 (1.6)	14 (21.9)	49 (76.6)
Total	179 (34.2)	125 (23.9)	96 (18.4)	123 (23.5)	34 (6.5)	69 (13.2)	420 (80.3)

*Number of live births in 1991 or 1992.
†Used as reference category in logistic regression analysis.
‡Includes hospitals in the Northwest and Yukon territories (see Methods for details).

0.41 [95% CI 0.22 to 0.78] respectively), after adjustments for hospital size and affiliation status (Fig. 1). The nonteaching hospitals were significantly less likely than the teaching hospitals to implement this policy (OR 0.36 [95% CI 0.13 to 0.95]). Hospital size was not found to be a significant factor.

Policy for allowing rooming-in 24 hours a day (step 7)

In most (89.0% [460/517]) of the hospitals respondents reported that all beds could be used for rooming-in. When asked how many hours per day infants were with their mothers according to their rooming-in policies, 65.2% (324/497) of respondents stated 19 to 24 hours per day. The only significant factor was location in Quebec: the hospitals in Quebec were significantly less likely than those in Ontario to have policies supporting 19 to 24 hours per day of rooming-in (OR 0.48 [95% CI 0.25 to 0.91]), after adjustments for hospital size and affiliation status (Fig. 1).

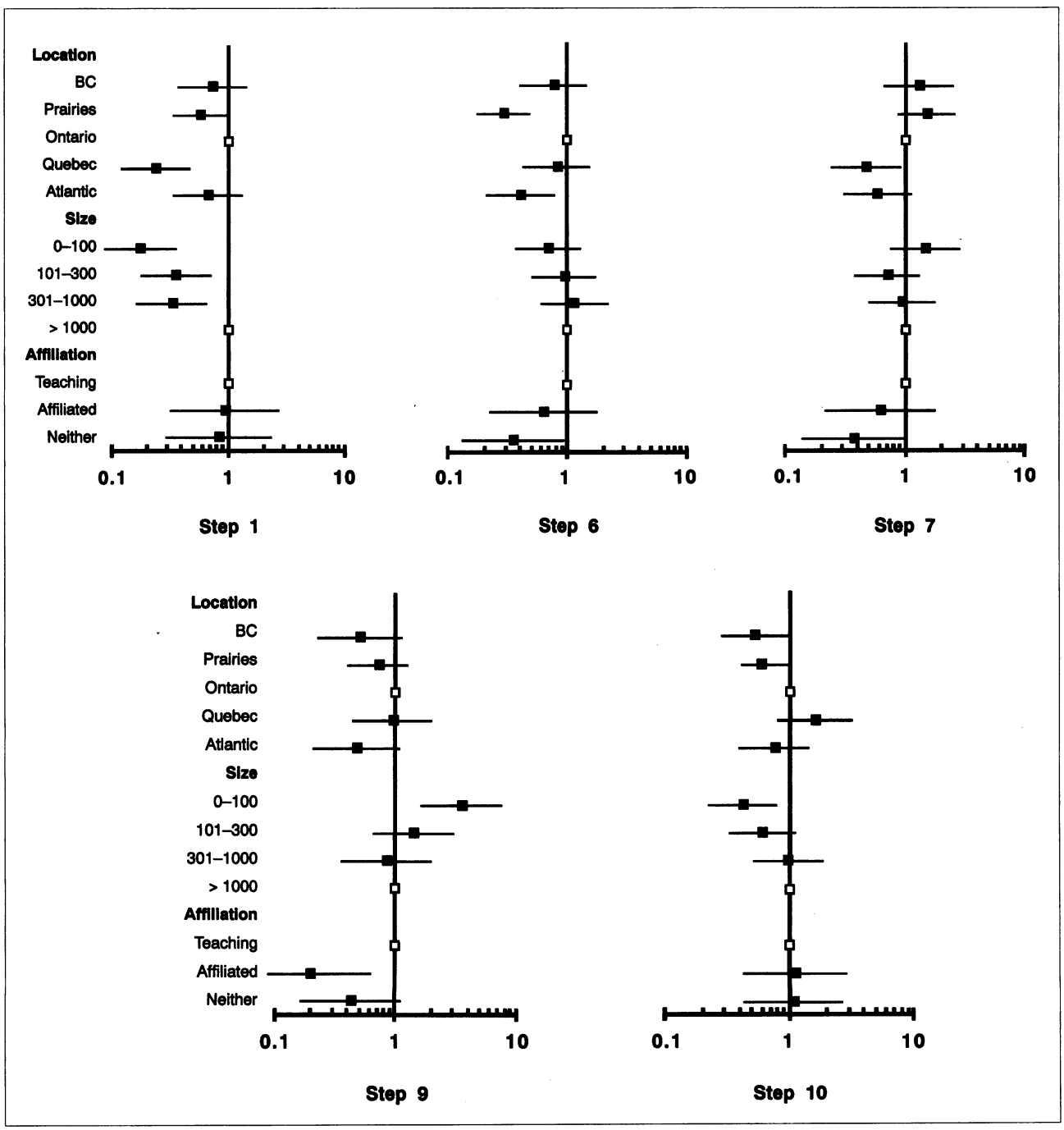

Fig. 1: Estimated odds ratios (black squares) and 95% confidence intervals (horizontal bars) for the presence, in Canadian hospitals providing maternity care, of policies based on 5 of the 10 Steps to Successful Breastfeeding issued jointly by the World Health Organization and UNICEF[21] (see Table 1 for definitions), according to hospital location, size (number of live births) and university affiliation status. White squares indicate reference categories.

Policy for encouraging breast-feeding on demand (step 8)

Most (97.1% [503/518]) of the respondents indicated that newborns were allowed to breast-feed on demand 24 hours a day. Therefore, we did not conduct further analyses of this question.

Policy for not giving artificial teats or pacifiers to breast-feeding infants (step 9)

Overall, 75.7% (393/519) of the respondents reported that their hospital did provide artificial teats or pacifiers (soothers). There were no statistically significant differences between the hospitals according to location. The smallest hospitals (0 to 100 live births) were significantly more likely than the largest ones to have implemented the policy (OR 3.54 [95% CI 1.66 to 7.58]), after adjustments for location and affiliation status. The university affiliated hospitals were significantly less likely than the university teaching hospitals to have implemented the policy (OR 0.20 [95% CI 0.06 to 0.63]) (Fig. 1).

Policy for fostering the establishment of breast-feeding support groups and referring mothers to them at discharge (step 10)

Over half (57.9% [297/513]) of the hospitals were reported to have a policy of offering mothers information on breast-feeding support groups or advice on breast-feeding, or both, at discharge. Hospitals in British Columbia and those in the Prairie provinces were somewhat less likely than those in Ontario to have such a policy (OR 0.53 [95% CI 0.29 to 0.99] and 0.59 [95% CI 0.36 to 0.98], respectively). The smallest hospitals were significantly less likely than the largest ones to have such a policy (OR 0.43 [95% CI 0.23 to 0.81]) (Fig. 1).

Compliance with the WHO code

Policy for not giving free samples of formula to breast-feeding mothers

In all, 23.8% (123/517) of the respondents reported that sample packs containing formula were routinely given to breast-feeding mothers; 17.8% (92/517) stated that they were given only on request, and 58.4% (302/517) stated that they were never given. For the multivariate logistic regression analysis, the responses were regrouped ("never" v. "only on request/routinely"). The hospitals in the Prairie provinces and those in Quebec were significantly more likely than those in Ontario to give sample packs to breast-feeding mothers (OR 2.39 [95% CI 1.39 to 4.09] and 20.22 [95% CI 9.27 to 44.33], respectively), after adjustments for hospital size and affiliation status (Fig. 2). The smallest hospitals were significantly more likely than the largest ones to do so (OR 2.33 [95% CI 1.17 to 4.65]). The nonteaching hospitals were significantly more likely than the teaching hospitals to give samples (OR 3.70 [95% CI 1.19 to 11.58]).

Policy for not giving free samples of formula to formula-feeding mothers

Almost two thirds (61.1% [316/517]) of the respondents stated that free sample packs containing formula

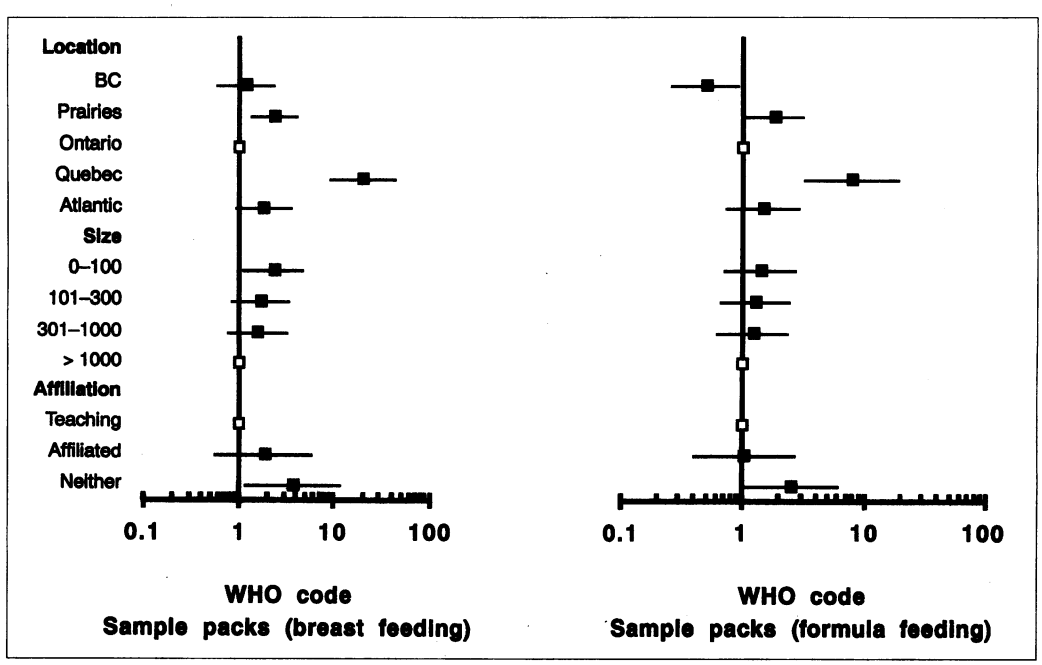

Fig. 2: Estimated odds ratios and 95% confidence intervals for the presence, in Canadian hospitals providing maternity care, of policies based on the WHO International Code of Marketing of Breast-Milk Substitutes.[29]

were routinely given to formula-feeding mothers; 8.5% (44/517) stated that they were given only on request, and 30.4% (157/517) stated that they were never given. The responses to this question were recoded for the multivariate logistic regression analysis, as described in the preceding paragraph. The hospitals in the Prairie provinces and those in Quebec were significantly more likely than those in Ontario to give free sample packs to formula-feeding mothers (OR 1.82 [95% CI 1.07 to 3.11] and 8.03 [95% CI 3.29 to 19.6], respectively), whereas the hospitals in British Columbia were significantly less likely to do so (OR 0.50 [95% CI 0.27 to 0.92]) (Fig. 2). The nonteaching hospitals were significantly more likely than the teaching hospitals to provide free sample packs to formula-feeding mothers (OR 2.52 [95% CI 1.03 to 6.17]), after adjustments for location and hospital size.

Compliance with the Baby-Friendly Hospital Initiative

Overall, 4.6% (21/454) of the respondents reported that their hospital had a policy that complied with *all* of the WHO/UNICEF steps surveyed. When compliance with the WHO code was added, that number was reduced to 1.3% (6/453). Because there were several small or empty cells we did not perform logistic regression analyses to identify factors associated with compliance.

Discussion

Efforts by mothers to successfully initiate or continue breast-feeding can be severely hampered by some hospitals' routine practices and by commercial interferences. We found that many hospitals in Canada continue to follow policies and practices that are not consistent with available research findings and that actively hinder the establishment of successful breast-feeding. Our findings highlight the hospitals by location, size and university affiliation status that would benefit from a reassessment of their routine policies and practices concerning infant feeding.

Having a written breast-feeding policy that is routinely communicated to all health care staff is a prerequisite for a good start to breast-feeding. The policy alone cannot guarantee high initiation and continuation rates, but it can provide a consistent approach to breast-feeding management for all health care staff and emphasize the importance of breast-feeding. Ideally, these written policies should be based on the WHO/UNICEF 10 steps and the WHO code.

We found that more than half of the hospitals surveyed had written breast-feeding policies and almost one third had ones claimed to be based on the 10 steps and the code. However, half of the hospitals routinely gave newborns water, glucose or formula, three quarters offered artificial teats or soothers, more than 40% did not provide information to new mothers on breast-feeding support groups at discharge, and one quarter provided free samples of formula to breast-feeding mothers and over two thirds provided free samples to formula-feeding mothers. At the same time, two of the steps (step 4 and step 8) were reported to have been implemented by almost all of the hospitals surveyed.

Only a fraction of the hospitals met the requirements included in our survey for promoting, protecting and supporting breast-feeding as set out by WHO and UNICEF and could thereby be considered baby friendly. When compliance with the WHO code was added, the proportion was further reduced to slightly over 1% of the hospitals surveyed.

There is some evidence supporting the relevance of the practices contained in the WHO/UNICEF 10 steps and the WHO code for developing and developed countries alike.[5–17] Several of the 10 steps and provisions of the code have been tested in formal controlled trials in Canada and elsewhere, and the findings have shown that barriers to successful breast-feeding include delay of the first breast-feed, separation of infant and mother, provision of supplements in the hospital and free samples of formula at discharge.[5–13] Other cross-sectional and observational studies have demonstrated that artificial nipples, breast-feeding support groups and rooming-in practices also influence breast-feeding.[13–17] Although not every step is supported with conclusive evidence in the literature and not every step may be equally important and relevant in the Canadian context, it is crucial that hospitals providing maternity care have written policies that provide an environment that protects, promotes and supports breast-feeding.

Too often, hospital practices and aggressive marketing of infant formula interfere with a woman's ability to make an informed decision concerning infant feeding. Indispensable to this decision making is the availability of accurate, scientific information about infant-feeding options. The promotional material distributed by formula manufacturers is inevitably biased and is designed to portray bottle feeding as an equivalent alternative to breast-feeding, when it clearly is not.

Our study had several limitations. First, we did not attempt to assess the internal and external validity of the survey instrument used. Second, the questionnaire did not address all of the WHO/UNICEF steps and the provisions of the WHO code. Third, the wording of the questions was somewhat different from that used in the 10 steps and the code. Fourth, the self-reported nature of our survey may have led to an overestimate of the actual number of Canadian hospitals that have adopted these

policies. Finally, the hospitals' policies may not reflect their actual infant-feeding practices.

Conclusion

At the time of the survey, only a handful of hospitals in Canada providing maternity care met the requirements for protecting, promoting and supporting breastfeeding set out by WHO and UNICEF and thereby could be considered baby friendly. Policies and practices need to be implemented in order to create an environment that protects, promotes and supports breastfeeding. This could be facilitated by a national implementation of the BFHI in Canadian hospitals providing maternity care.

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